

BOX NON-FEE  
AMENDMENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: C.-Y. Lee Attorney Docket No.: DYNA117748  
Application No.: 09/932,280 Group Art Unit: 2611  
Filed: August 17, 2001  
Title: PERSONAL WEB GUIDE SYSTEM AND METHOD FOR  
AUTOMATICALLY DISPLAYING WEB INFORMATION

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01/29/02

PRELIMINARY AMENDMENT

Seattle, Washington 98101

November 9, 2001

TO THE COMMISSIONER FOR PATENTS:

Please enter the following amendments for the above-identified patent application as follows:

In the Specification:

At page 6, lines 17-18: FIGURES 12A and 12B depict a flowchart illustrating the detailed steps involved in step 162 of FIGURE 11; and

At page 16, line 16: FIGURE 11 illustrates the operation of the client system 1 in accordance with one embodiment of the present invention. Referring additionally to FIGURE 2, in FIGURE 11, step 151, the Web browser 32 requests a schedule program Web page (FIGURE 6) from the host workstation 7. In step 152, the requested schedule program Web page is received. In step 154, when the user selects the category of a schedule program, the browser 32 transmits the selected category to the host workstation 7. In step 156, the schedule program for the selected category is received from the host workstation 7. In step 158, the schedule program is automatically sent to the schedule program server 8. Thereafter, as described above, the schedule program server 8 interprets the schedule program and generates temporary Web pages and a display control program in accordance with the schedule program. Then, in step 160, the display control program is downloaded from the schedule program

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server 8. In step 162, the downloaded display control program is executed to download and display the temporary Web pages on the client system 1 in predetermined order, as more fully described below in references to FIGURE 12A and FIGURE 12B.

On page 17, line 1: Still referring additionally to FIGURE 2, in FIGURE 12A and FIGURE 12B, step 164, the schedule program control 36 first sets the Web browser 32 in slave mode. When set in slave mode, the Web browser 32 merely displays and scrolls the Web pages as directed by the schedule program control 36, and does not perform any downloading and displaying of a Web page directed by the user. In step 165, a counter is set to  $n = 1$ . In next step 166, according to the received display control program, the schedule program control 36 downloads the  $n^{\text{th}}$  temporary page from the temporary Web page database 67 of the schedule program server 8 (FIGURE 3B). In step 168, the downloaded  $n^{\text{th}}$  temporary Web page is displayed (and scrolled if so specified in the display control program). In step 170, it is determined whether the next page exists. If so, in step 172, the schedule program control 36 immediately starts downloading the next page ( $n+1^{\text{th}}$  page) into the Web page buffer 34. As will be appreciated by those skilled in the art, such pre-downloading is preferable so that the next page will be immediately available for display upon expiration of the display period of the current page. Next, the schedule program control 36 waits to receive any of four interruption commands, specifically, a skip command in step 174, a pause command in step 176, a stop command in step 178, and a change scroll speed command in step 180.

On page 17, line 29: Referring back to FIGURE 12A and FIGURE 12B, in step 174, if it is determined that the skip forward command has been issued, in step 200, it is determined whether the next page exists. If so, in step 202, the next temporary page already downloaded from the schedule program server 8 is retrieved from the Web page buffer 34 (see step 172), and the counter is increased to  $n = n+1$ . At this time, if the next temporary page has not been fully

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downloaded yet (i.e., step 172 is not completed), step 202 may have to wait until the temporary page is fully downloaded. Then, returning to step 168, this next temporary Web page is displayed (and may be scrolled) on the client system 1. If, in step 174, it is determined that the skip backward command has been issued, in step 204, it is determined if a previous page exists, and if so, in step 206, the counter is decreased to  $n = n - 1$ . Then returning to step 166, this previous Web page is downloaded from the schedule program server 8, and is displayed (step 168). In step 176, if it is determined that the pause command has been issued, in step 208, the current display on the screen of the client system 1 is frozen (paused). Thereafter, in step 210, if it is determined that the stop command has been issued, then in step 212, the schedule program control 36 sets the Web browser 32 back into normal mode and terminates its operation. Likewise, if in step 178, it is determined that the stop command has been issued (while the display is not paused), then in step 212, the schedule program control 36 sets the Web browser 32 back into normal mode and terminates its operation. If, after the display is paused (step 208), in step 214, it is determined that a command to deactivate pause has been issued (e.g., by pressing the pause button for the second time), next in step 180, it is determined whether the command to change the scroll speed has been issued. If so, in step 216, the scroll speed is increased or decreased, according to the user's command. In step 218, it is determined whether the display period for the current period, as specified in the display control program received from the schedule program server 8, has expired. If not, returning to step 174, the schedule program control 36 again waits to receive any of the command interruptions. On the other hand, if the display period has expired, proceeding to step 200, it is determined whether there is any additional page. If so, in step 202, the next page already downloaded into the Web page buffer 34 is retrieved and the counter is increased to  $n = n + 1$ . Then, in step 168, the next page is displayed (and scrolled, if necessary). In step 200, if it is determined that there is no additional

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page, in step 212, the schedule program control 36 sets the Web browser 32 back into normal mode and terminates its operation.

On page 20, line 15: As will be further apparent from the foregoing description, in accordance with the present invention, because the next Web page may be downloaded while the current Web page is still on display, and because the display period of a Web page is typically longer than the time required to download another Web page, the user can view the next Web page immediately after finishing viewing the current page. Thus, the user does not have to wait between viewing successive pages. While FIGURE 12A and FIGURE 12B describe an embodiment of the present invention wherein only one next page is downloaded while the current page is on display (step 172), a plurality of next pages may be downloaded while the current page is on display depending on the capacity of the Web page buffer 34 (FIGURE 2).

On page 21, line 12: In this connection, when a user of the client system 1 is at least minimally familiar with computer operation, it is further contemplated in accordance with the present invention that the client system memory 24 (FIGURE 2) may include a schedule program editing system 42, similar to the schedule program editing system 56 of the host workstation 7 (FIGURE 3A). The user can then use the editing system 42 to create and edit his or her own schedule program, in a manner described above in reference to FIGURES 7A-9B above. The created schedule programs are stored in the schedule program memory 43 of the client system 1. Likewise, the client system memory 24 may further include a schedule program interpreter 44 and temporary Web page database 45, similar to the schedule program interpreter 63 and the temporary Web page database 67 of the schedule program server 8 (FIGURE 3B). In this configuration, the schedule program interpreter 44 of the client system 1 will receive and interpret a schedule program to generate temporary pages and their display control program, in a manner similar to the process illustrated in FIGURE 10. The temporary Web pages are stored in

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the temporary Web page database 45 within the client system memory 24. Then, the schedule program control 36, using the display control program, displays the temporary Web pages in a manner similar to the process illustrated in FIGURE 12A and FIGURE 12B. In short, in this configuration, the client system 1 is self-sufficient in performing all the functions associated with a schedule program, which were previously distributed amongst the client system 1, the host workstation 7, and the schedule program server 8. This configuration, however, may add to the cost of manufacturing the client system 1, as more functions are assigned thereto. Further, the client system 1 of this configuration may be too difficult to operate for computer-novice users to enjoy the advantage of a personal Web guide system of the present invention.

In the Drawings:

Figure 12A and Figure 12B are attached as replacements for Figure 12.

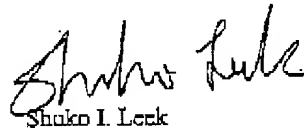
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REMARKS

Figure 12 has been split into two drawings, Figure 12A and Figure 12B. The specification has been amended to reflect this change. The drawings divide Figure 12 roughly into halves for ease of reading; no further amendments have been made to the drawings. A complete set of drawings is filed herewith.

Respectfully submitted,

CHRISTENSEN O'CONNOR  
JOHNSON KINDNESS<sup>PLLC</sup>

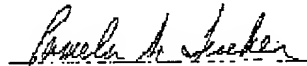


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November 9, 2001



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VERSION WITH MARKINGS TO SHOW CHANGES MADE NOVEMBER 9, 2001In the Specification:

At page 6, lines 17-18: [FIGURE 12 is] FIGURES 12A and 12B depict a flowchart illustrating the detailed steps involved in step 162 of FIGURE 11; and

At page 16, line 16: FIGURE 11 illustrates the operation of the client system 1 in accordance with one embodiment of the present invention. Referring additionally to FIGURE 2, in FIGURE 11, step 151, the Web browser 32 requests a schedule program Web page (FIGURE 6) from the host workstation 7. In step 152, the requested schedule program Web page is received. In step 154, when the user selects the category of a schedule program, the browser 32 transmits the selected category to the host workstation 7. In step 156, the schedule program for the selected category is received from the host workstation 7. In step 158, the schedule program is automatically sent to the schedule program server 8. Thereafter, as described above, the schedule program server 8 interprets the schedule program and generates temporary Web pages and a display control program in accordance with the schedule program. Then, in step 160, the display control program is downloaded from the schedule program server 8. In step 162, the downloaded display control program is executed to download and display the temporary Web pages on the client system 1 in predetermined order, as more fully described below in [reference] references to [FIGURE 12] FIGURE 12A and FIGURE 12B.

On page 17, line 1: Still referring additionally to FIGURE 2, in [FIGURE 12] FIGURE 12A and FIGURE 12B, step 164, the schedule program control 36 first sets the Web browser 32 in slave mode. When set in slave mode, the Web browser 32 merely displays and scrolls the Web pages as directed by the schedule program control 36, and does not perform any downloading and displaying of a Web page directed by the user. In step 165, a counter is set to  $n = 1$ . In next step 166, according to the received display control program, the schedule program control 36 downloads the  $n^{\text{th}}$  temporary page from the temporary Web page database 67 of the

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schedule program server 8 (FIGURE 3B). In step 168, the downloaded  $n^{\text{th}}$  temporary Web page is displayed (and scrolled if so specified in the display control program). In step 170, it is determined whether the next page exists. If so, in step 172, the schedule program control 36 immediately starts downloading the next page ( $n+1^{\text{th}}$  page) into the Web page buffer 34. As will be appreciated by those skilled in the art, such pre-downloading is preferable so that the next page will be immediately available for display upon expiration of the display period of the current page. Next, the schedule program control 36 waits to receive any of four interruption commands, specifically, a skip command in step 174, a pause command in step 176, a stop command in step 178, and a change scroll speed command in step 180.

On page 17, line 29: Referring back to [FIGURE 12] FIGURE 12A and FIGURE 12B, in step 174, if it is determined that the skip forward command has been issued, in step 200, it is determined whether the next page exists. If so, in step 202, the next temporary page already downloaded from the schedule program server 8 is retrieved from the Web page buffer 34 (see step 172), and the counter is increased to  $n = n+1$ . At this time, if the next temporary page has not been fully downloaded yet (i.e., step 172 is not completed), step 202 may have to wait until the temporary page is fully downloaded. Then, returning to step 168, this next temporary Web page is displayed (and may be scrolled) on the client system 1. If, in step 174, it is determined that the skip backward command has been issued, in step 204, it is determined if a previous page exists, and if so, in step 206, the counter is decreased to  $n = n-1$ . Then returning to step 166, this previous Web page is downloaded from the schedule program server 8, and is displayed (step 168). In step 176, if it is determined that the pause command has been issued, in step 208, the current display on the screen of the client system 1 is frozen (paused). Thereafter, in step 210, if it is determined that the stop command has been issued, then in step 212, the schedule program control 36 sets the Web browser 32 back into normal mode and terminates its

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operation. Likewise, if in step 178, it is determined that the stop command has been issued (while the display is not paused), then in step 212, the schedule program control 36 sets the Web browser 32 back into normal mode and terminates its operation. If, after the display is paused (step 208), in step 214, it is determined that a command to deactivate pause has been issued (e.g., by pressing the pause button for the second time), next in step 180, it is determined whether the command to change the scroll speed has been issued. If so, in step 216, the scroll speed is increased or decreased, according to the user's command. In step 218, it is determined whether the display period for the current period, as specified in the display control program received from the schedule program server 8, has expired. If not, returning to step 174, the schedule program control 36 again waits to receive any of the command interruptions. On the other hand, if the display period has expired, proceeding to step 200, it is determined whether there is any additional page. If so, in step 202, the next page already downloaded into the Web page buffer 34 is retrieved and the counter is increased to  $n = n + 1$ . Then, in step 168, the next page is displayed (and scrolled, if necessary). In step 200, if it is determined that there is no additional page, in step 212, the schedule program control 36 sets the Web browser 32 back into normal mode and terminates its operation.

On page 20, line 15: As will be further apparent from the foregoing description, in accordance with the present invention, because the next Web page may be downloaded while the current Web page is still on display, and because the display period of a Web page is typically longer than the time required to download another Web page, the user can view the next Web page immediately after finishing viewing the current page. Thus, the user does not have to wait between viewing successive pages. While [FIGURE 12 described] FIGURE 12A and FIGURE 12B describe an embodiment of the present invention wherein only one next page is downloaded while the current page is on display (step 172), a plurality of next pages may be

downloaded while the current page is on display depending on the capacity of the Web page buffer 34 (FIGURE 2).

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for computer-novice users to enjoy the advantage of a personal Web guide system of the present invention.

In the Drawings:

Figure 12A and Figure 12B have been added to replace Figure 12.